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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,883	06/08/2006	Thomas Nosker	P26,788-A USA	7021

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EXAMINER

TISCHLER, FRANCES

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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08/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,883	Applicant(s) NOSKER ET AL.	
	Examiner FRANCES TISCHLER	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-8 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) 23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-8 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 23-24 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed 5/26/09. Claims 1 – 4, 6 - 8, 19 and 20 have been amended. Claims 5, 9 - 18 have been cancelled. Claims 21 – 24 have been added. Claims 1 – 4, 6 - 8 and 19 - 24 are now pending.

The 35 USC 112 rejection not discussed below is deemed withdrawn.

Election/Restrictions

Applicant's election without traverse of Group I in the reply filed on 5/26/09 is acknowledged.

Claim Objections

Claim 1 is objected to because of the following informalities: Applicant writes "...flange sections measured perpendicular said horizontal axis...", where there is missing a "to" between "said" and "horizontal". Applicant writes "...said flange section to is two to ten times the width...", where the first "to" should be deleted. Appropriate correction is required.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 1 – 4, 6 - 8 and 17 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nosker et al (US 5,789,477) in view of Marinelli (US 6,247,651).

The rejection is adequately set forth in the previous office action dated 12/31/08 and is incorporated herein by reference.

Regarding the amendments to claim 1:

Nosker discloses using the modular plastic structural member comprising the polymer blend and fiber as claimed by Applicant, and further discloses using said structure as railway ties, but is silent on specifics of said ties, such as web and flange sections. Marinelli discloses using substantially identical modular plastic structural members as railway ties and discloses that the web and the flange sections of said ties have different dimensions. The width and thickness ratio between the flange and the web can be compared to standard railroad ties and optimized through routine experimentation using Nosker's composite and Marinelli's disclosure of width differences to arrive at the desired results of ties that fit the required dimensions. Additionally, it would have been obvious to one of ordinary skill in the art to have varied the dimensions for the desired purpose.

Nosker is silent as to describing the polymer blend as "co-continuous immiscible". However, since Nosker's blend is substantially identical to the claimed invention, said blend is inherently co-continuous immiscible.

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Regarding the amendments to claim 20:

Nosker discloses (3:19 – 31, 5:44 – 65, 6:52 – 64, Table 2) a compressive modulus of at least preferably of 250,000 psi and a compression strength of 3,600 – 3,900 psi. Said numbers depend on the ratio of the two polymers and the fibers used. For instance, Nosker discloses that the amount of coated fiber content determines the tensile modulus. In light of the above, it would have been obvious to one of ordinary skill in the art to have varied the amount of polymers and fiber for the desired results.

Regarding new claims 21 and 22:

See Nosker 2:18 - 22, 4:7 - 29 and 64 - 67, 5:1 - 4 and 24 - 36.

Regarding new claim 23:

The claim has not been considered on its merit since Applicant uses optional language.

Regarding claim 24:

Because Marinelli discloses substantially identical structural members as claimed by Applicant comprising flange and web sections of different dimensions, they are inherently capable of being nested. Marinelli is silent as to the formation of a 90° angle between flange and web. However, it is apparent from the disclosed figure that such angle is formed. Additionally, Marinelli's silence regarding an angle implies that any angle can be made between the flange and the web. Moreover, it is hard to envision any other physical possibility but a 90° angle. In light of the above, it would have been obvious to one of ordinary skill in the art to have made Nosker's railroad tie

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with the structural parameters disclosed by Marinelli and thus have the property of being able to be nested.

Response to Arguments

Applicant's arguments filed 5/26/09 have been fully considered but they are not persuasive.

Applicant traverses the 35 USC 112 rejection, submitting that prior art discloses that it is possible for the blend to be used as a high-stress structural member.

Examiner believes that Applicant misunderstood the rejection. The claim language was written to read only on polystyrene, when in fact it was meant to also include the fiber. Applicant has corrected the language and the rejection is therefore withdrawn.

Applicant submits that Nosker and Marinelli cannot be combined and, when combined, does not teach all the elements of the present invention. Applicant submits that Marinelli teaches HDPE and rubber composites where said composite cannot handle high loads without deforming, whereas Applicant uses HDPE, polypropylene and fiber composites.

Applicant's arguments are not convincing. Nosker teaches the same composite as claimed by Applicant to be used as a member such as a railroad tie, thus reading on Applicant's claim. Marinelli is used herein to teach that a substantially identical composite to Nosker's composite, which is used for the same purpose disclosed by Nosker of a railroad tie, can be made into I-beams and has web and flange dimensions.

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Similarly to Applicant's claim, Marinelli teaches a composite comprising HDPE, polypropylene and fibers (see 2:18 – 25 and claim 1), in addition to the rubber component. Additionally, since Marinelli teaches that the composition can be used as railroad ties, it must be able to withstand high loads without deforming. Moreover, Applicant's independent claim 1 has been broadened to read a "thermoplastic polymer" in lieu of "polystyrene" as previously claimed. Marinelli's polypropylene and rubber read on Applicant's thermoplastic rubber.

Applicant submits that the new claims disclose structures capable of being nested, with larger and smaller I-beam shaped members, interconnecting angles, etc; that construction such as bridges would not be possible with the prior art.

As explained above, Because Nosker discloses the same modular plastic structural composite claimed by Applicant And because Marinelli discloses substantially identical structural members comprising flange and web sections of different dimensions that can be optimized for the desired purpose, as claimed by Applicant, they are inherently capable of being nested. Although Marinelli is silent as to the formation of a 90° angle between flange and web, it is apparent from the disclosed figure that such angle is formed. Additionally, Marinelli's silence regarding an angle implies that any angle can be made between the flange and the web. Moreover, it is hard to envision any other physical possibility but a 90° angle.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **FRANCES TISCHLER** whose telephone number is (571)270-5458. The examiner can normally be reached on Monday-Friday 7:30AM - 5:00 PM; off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/
Primary Examiner, Art Unit 1796

Frances Tischler
Examiner
Art Unit 1796

/FT/